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620 TINTON AVENUE BLDG. B, 2ND FLOOR			ART UNIT	PAPER NUMBER	
,	TINTON FALLS, NJ 07724			2176	
			DATE MAU ED: 01/04/2006	4	

Please find below and/or attached an Office communication concerning this application or proceeding.

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:	Application No.	Applicant(s)				
Office Action Commence	10/716,951	ROHRS, CHRISTOPHER				
Office Action Summary	Examiner	Art Unit				
	Michael K. Botts	2176				
The MAILING DATE of this communication appears on the cover sheet with the correspondence address Period for Reply						
A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.  - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).						
Status						
1) Responsive to communication(s) filed on 11/18	3/2003: 2/5/2004.					
•	<u> </u>					
·						
closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213.						
· ·						
Disposition of Claims						
4)⊠ Claim(s) <u>1-50</u> is/are pending in the application.						
4a) Of the above claim(s) is/are withdrawn from consideration.						
5) Claim(s) is/are allowed.						
6)⊠ Claim(s) <u>1-50</u> is/are rejected.						
7) Claim(s) is/are objected to.						
8) Claim(s) are subject to restriction and/or election requirement.						
Application Papers	. '					
9) The specification is objected to by the Examiner.						
10)☑ The drawing(s) filed on <u>18 November 2003</u> is/are: a)☐ accepted or b)☑ objected to by the Examiner.						
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).						
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).						
11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.						
Priority under 35 U.S.C. § 119						
12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).						
a) ☐ All b) ☐ Some * c) ☐ None of:						
1. ☐ Certified copies of the priority documents	s have been received.					
	2. Certified copies of the priority documents have been received in Application No					
3. Copies of the certified copies of the priority documents have been received in this National Stage						
application from the International Bureau		<b>2 t</b>				
* See the attached detailed Office action for a list of the certified copies not received.						
See the attached detailed Office action for a list of the defailed deplet net reserved.						
Attachment(s)						
Notice of References Cited (PTO-892)  Notice of Draftsperson's Patent Drawing Review (PTO-948)  Interview Summary (PTO-413)  Paper No(s)/Mail Date						
<ol> <li>Notice of Draftsperson's Patent Drawing Review (PTO-948)</li> <li>Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)</li> </ol>		Patent Application (PTO-152)				
Paper No(s)/Mail Date <u>2/5/2004</u> .	6) Other:					

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#### **DETAILED ACTION**

1. This document is the first Office Action on the merits. This action is responsive to the following communications: The Non-Provisional Application, which was filed on November 18, 2003, and an Information Disclosure Statement (IDS), which was filed on February 5, 2004.

- 2. Claims 1-50 have been examined, with claims 1, 8, 16, 17, 33, and 50 being the independent claims.
- 3. The Drawings are objected to.
- 4. The Abstract is objected to.
- 5. Claim 32 is objected to.
- 6. Claims 1-50 are rejected.

#### Information Disclosure Statement

7. An initialed and dated copy of applicant's IDS form 1449, which was filed on February 5, 2004, is attached to this Office Action.

## **Drawings**

8. The drawings are objected to because the drawing sheets are presented out of sequential order. Specifically, Figure 5 appears before Figure 4.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate

prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

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#### Abstract of the Disclosure

9. The abstract of the disclosure is objected to because it identifies the invention as "a system and method" whereas claim 50 also claims an apparatus. The abstract is therefore incomplete. Correction is required. See MPEP § 608.01(b).

## Claims Objections

10. **Dependent claim 32** is objected to because of the following informality: Claim 32 depends from dependent claim 31, which in turn depends from independent claim 17. Claim 32 adds the limitation "at least one record specifying at least one such word as a key into the hash table . . .." See, Claim 31, lines 2-3. The term "record" does not

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appear in either claim 31 or claim 17. Also, the term "record" is not found to be identified in the disclosure as a particular data type. It is believed that the applicant intended the term "record" to refer to the words in the source text or corpus text. In the interest of compact prosecution, "record" will be read as being synonymous with the source document or text corpus.

Appropriate correction is required.

### Claims Rejections – 35 U.S.C. 112, Second Paragraph

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

- 11. Claims 1-7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The elements "capitalizer," "tokenizer," "processor," and "preprocessor" are defined with functions which are contradictory or mutually exclusive, specifically:
- a) Independent claim 1 identifies a "capitalizer to analyze the set of words for correct capitalization." Claim 1 also identifies a separate "preprocessor to tokenize an expert of unstructured content into a set of words." The "capitalizer" is separate from the "preprocessor to tokenize." Dependent claims 2-7 inherit this definition through claim 1.
- b) The disclosure identifies the capitalizer as the element that tokenizes, stating: "The capitalizer 64 tokenizes individual words." See, disclosure, page 10, lines 17-18.

Further, in the same paragraph, the tokenizer is defined as a separate element, stating: "In one embodiment, individual words within the excerpt 66 are tokenized with regular expression or with a tokenizer 65." See, disclosure, page 10, lines 21-23.

- c) Figure 4 illustrates a 'Tokenizer 65" contained entirely within the "Capitalizer 64" element, and no other tokenizer is shown.
- d) Figure 4 also illustrates a "processor 62, but does not identify a "preprocessor to tokenize" as claimed.

With the lack of clarity and apparent mutually exclusive definitions of the terms "capitalizer," "tokenizer," "processor," and "preprocessor," as identified above, one of ordinary skill in the art at the time of the invention would not be able to make or use the invention claimed.

Dependent claim 15 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 15 is an improper hybrid claim, containing both apparatus and method as the subject matter. Claim 15 purports to be a dependent claim of claim 1. Claim 1 claims a system, which is read as a method claim. Claim 15 claims an apparatus, stating: "A computer-readable storage medium holding code for performing the method according to claim 1." A single claim which claims both an apparatus and the method steps of using the apparatus is indefinite under 35 U.S.C. 112, second paragraph. See, *Ex Parte Lyell*, 17 USPQ2d 1548 (Bd. Pat. App. & Inter. 1990). See also, MPEP 2173.05(p).

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13. **Dependent claim 49** is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 49 is an improper hybrid claim, containing both apparatus and method as the subject matter. Claim 49 purports to be a dependent claim of claim 33. Claim 33 claims a system, which is read as a method claim. Claim 49 claims an apparatus, stating: "A computer-readable storage medium holding code for performing the method according to claim 33." A single claim which claims both an apparatus and the method steps of using the apparatus is indefinite under 35 U.S.C. 112, second paragraph. See, *Ex Parte Lyell*, 17 USPQ2d 1548 (Bd. Pat. App. & Inter. 1990). See also, MPEP 2173.05(p).

### Claim Rejections – 35 U.S.C. 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

14. **Dependent claim 15** is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claim 15 depends from independent claim 1. Claim 15 purports to claim an apparatus or performing the method of claim 1. As a result, claim 15 is directed to neither a "process" nor a "machine," but rather embraces or overlaps two different statutory classes of invention set forth in 35 U.S.C. 101, which is drafted so as to set forth the statutory classes of

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invention in the alternative only. See, *Ex Parte Lyell*, 17 USPQ2d 1548, 1551 (Bd. Pat. App. & Inter. 1990). See also, MPEP 2173.05(p).

15. **Dependent claim 49** is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claim 49 depends from independent claim 33. Claim 49 purports to claim an apparatus or performing the method of claim 33. As a result, claim 49 is directed to neither a "process" nor a "machine," but rather embraces or overlaps two different statutory classes of invention set forth in 35 U.S.C. 101, which is drafted so as to set forth the statutory classes of invention in the alternative only. See, *Ex Parte Lyell*, 17 USPQ2d 1548, 1551 (Bd. Pat. App. & Inter. 1990). See also, MPEP 2173.05(p).

## Claims Rejections – 35 U.S.C. 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
- 16. Claims 1-50 are rejected under 35 U.S.C. 102(b) as being anticipated by Coden, et al. (U.S. Patent Application Publication 2002/0099744, published July 25, 2002, and issued as U.S. Patent 6,922,809 on July 26, 2005) [hereinafter "Coden"].

## Regarding independent claim 1, Coden teaches:

A system for providing capitalization correction for unstructured excerpts, comprising:

a preprocessor to tokenize an excerpt of unstructured content into a set of words; and

(See, Coden, Figure 1, item 50, and Figure 2, and paragraph [0035], teaching a preprocessor to output character data to other parts of the system, including titles, abbreviations, single words and phrases.)

a capitalizer to analyze the set of words for correct capitalization, comprising:

an evaluator to evaluate individual characters constituting at least one such word in the set of words; and

(See, Coden, paragraphs [0039]-[0053], teaching the evaluation of sentences and abbreviations, including titles and middle initials in proper names.)

a filter to skip the at least one such word if determined to be of a predefined type.

(See, Coden, Figure 12, and paragraphs [000017], [0067], [0093], and claims 10 and 19, teaching filtering words of predefined types.)

# Regarding dependent claim 2, Coden teaches:

A system according to Claim 1, further comprising:

a title capitalizer to provide one or more of the words with an initial letter in uppercase and each remaining letter in lowercase.

(See, Coden, paragraph [0042], teaching a titles dictionary or simply a titles list.)

### Regarding dependent claim 3, Coden teaches:

A system according to Claim 1, further comprising:

a sentence capitalizer to provide only an initial such word with an initial letter in uppercase and each remaining letter in lowercase.

(See, Coden, paragraph [0039], teaching automatic capitalization of a sentence.)

## Regarding dependent claim 4, Coden teaches:

A system according to Claim 1 further comprising:

a word analyzer to skip at least one of each such word comprising a number, each such word including no vowels, and each such word not occurring at a start of a phrase and constituting at least one of an article, conjunction, preposition.

(See, Coden, Figure 6, item 325, and paragraph [0083], teaching parsing and determination whether the parsed string begins with a character or a number. See also, Coden, paragraph [0043], teaching parsed words including numbers and words consisting entirely of consonants. It is inherent in the Coden capitalization system that numbers skipped and not capitalized because numbers are incapable of being capitalized.)

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Regarding dependent claim 5, Coden teaches:

A system according to Claim 1, further comprising:

a lexicon comprising one or more reference words with at least one

reference word defining a form of capitalization for the reference word;

a matcher to match the at least one such word against the reference

words, the evaluator skipping each such word if a matching reference word is

found.

(See, Coden, paragraphs [0041]-[0071], teaching titles dictionary, abbreviations

dictionary, heuristic processing, capitalization dictionary, named entity recognizer, and

the phrase dictionary. All such dictionaries are used for word comparison and the

words are not further processed if they match the appropriate capitalization as found in

the dictionaries.)

Regarding dependent claim 6, Coden teaches:

A system according to Claim 1, further comprising:

a proper noun capitalizer to provide the individual letters in each such

word comprising a noun with no vowels in uppercase.

(See, Coden, paragraphs [0042]-[0043], teaching capitalization of titles and words

consisting entirely of consonants.)

Regarding dependent claim 7, Coden teaches:

A system according to Claim 1, further comprising:

a tokenizer to tokenize the excerpt into the one or more words and one or more punctuation marks.

(See, Coden, paragraph [0035], teaching a preprocessor and processing subsystems, including a punctuation subsystem, a singles subsystem, and a phrase processing subsystem.)

Regarding **independent claim 8**, claim 8 incorporates substantially similar subject matter as claimed in claim 1 and is rejected along the same rationale.

Regarding **dependent claims 9 and 10**, claims 9 and 10 incorporate substantially similar subject matter as claimed in claim 2 and are rejected along the same rationale.

Regarding **dependent claims 11-14**, claims 11-14 incorporate substantially similar subject matter as claimed in claims 4-7, respectively, and are rejected along the same rationale.

Regarding **dependent claim 15**, claim 15 incorporates substantially similar subject matter as claimed in claim 1 and is rejected along the same rationale.

Regarding **independent claim 16**, claim 16 incorporates substantially similar subject matter as claimed in claim 1 and is rejected along the same rationale.

#### Regarding independent claim 17, Coden teaches:

A system for building a lexicon for use in capitalization correction for unstructured excerpts, comprising:

(A "lexicon" is read as synonymous with the term "dictionary." See, The American Heritage College Dictionary, Fourth Edition, Houghton Mifflin, 2002, definition of "lexicon.")

a ripper assembling a list of word sets from unstructured content, each word set comprising a word and at least one variation on capitalization; (A "ripper" is defined in the disclosure as follows: "The ripper 34 retrieves excerpts from the text corpus 38 and tokenizes the excerpts into individual tokens from which the individual words, capitalization variations, and frequencies of occurrence are determined." See, disclosure, page 8, lines 15-17. The same function as a "ripper" is performed in the invention in Coden as a preprocess, which is defined in Coden as follows: "The output of the source 1 is connected to a preprocessor 50, described in FIG. 2, which outputs preprocessed character data to the other component parts and subsystems of the capitalization recovery system 10. These subsystems include a title processing subsystem 100, an abbreviations processing subsystem 200, a punctuation processing subsystem 300, a singles or singleton processing subsystem 500 and a phrase processing subsystem 800." See, Coden, paragraph [0035]. A "ripper" in the application is the same element, or performs the same function as a "preprocessor" in Coden.)

an aggregator aggregating each word set, comprising:

(It is noted that the "subsystems" in Coden, identified above, are the same elements or perform the same functions as the "aggregator" element in the application. The application identifies the function of the "aggregator" as generating the lexicon. See, disclosure, page 8, lines 22-23. Similarly, the "subsystems" generate the various dictionaries in Coden. See, Coden, Figures 1-12, and paragraphs [0035]-[0093].)

an analyzer identifying at least one word set comprising significant

statistics; and

("Significant statistics" in the application include, for example, "four or more occurrences" of capitalization variation in the "text corpus" or "other forms of statistical and metrics of significance" in occurrences of capitalization variation. See, disclosure, page 8, lines 22-31. Identically, Coden tracks significant statistics, which directly impact the elements in the dictionaries. See, Coden, generally, paragraphs [0055]-[0093], and specifically, paragraphs [0055]-[0063] teaching the capitalization frequency dictionary.)

a non-standard capitalization selector selecting at least one such variation within the identified word set having a non-standard capitalization, and adding the at least one such variation to the lexicon.

(See, Coden, generally, Figures 1-12, and paragraphs [0035]-[0093], and specifically, paragraph [0067] teaching adding new words to the dictionaries.)

Regarding dependent claim 18, Coden teaches:

A system according to Claim 17, further comprising:

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a tokenizer tokenizing the excerpt into the one or more words and one or more punctuation marks.

(See, Coden, paragraph [0035].)

## Regarding dependent claim 19, Coden teaches:

A system according to Claim 18, wherein hyphenated words are split into a plurality of the words.

(See, Coden, paragraph [0086], stating: "if the word is hyphenated, each word by itself is looked up in the singles dictionary 15A and the same rules as just described apply to each of the words separately before recombining them with a hyphen.")

# Regarding dependent claim 20, Coden teaches:

A system according to Claim 17, wherein at least one variation appearing at the start of a sentence is skipped.

(See, Coden, paragraph [0040], teaching that a prior period may or may not signal the beginning of a sentence to follow and capitalization may or may not be appropriate.)

## Regarding dependent claim 21, Coden teaches:

A system according to Claim 20, wherein the non-standard capitalization comprises the at least one variation occurring in an excerpt having fewer than half of individual letters provided in uppercase.

(See, Coden, paragraph [0064], teaching handing common words that may also be used as surnames.)

### Regarding dependent claim 22, Coden teaches:

A system according to Claim 17, further comprising:

a normalizer normalizing a plurality of the words extracted relative to a source of the structured Web content.

(It is noted that the "normalizer" and the act of "normalizing" is disclosed as using the filter to protect the lexicon from being influenced by a large body of improperly capitalized words, such as might occur if the corpus of text was drawn from the web. See, disclosure, page 12, line 29 through page 13, line3.

See, Coden, paragraph [0017], teaching a filter to eliminate items with a high likelihood of being erroneous. See generally, Coden, paragraphs [0009]-[0021], teaching prior art and the invention to establish and protect dictionaries from infrequently occurring and erroneous entries.)

## Regarding dependent claim 23, Coden teaches:

A system according to Claim 17, wherein the significant statistics comprises at least four occurrences of at least one such variation within a word set.

(Coden tracks significant statistics, which directly impact the elements in the dictionaries. See, Coden, generally, paragraphs [0055]-[0093], and paragraphs [0055]-

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[0063] teaching the capitalization frequency dictionary. Specifically, see, Coden, paragraph [0055], teaching storing the number of times a word appears in certain forms. The number of times a word appears is not specifically set in Coden at four or more, but such statistic is inherent in the fact that the occurrences are counted. Since Coden counts the occurrences, without limit, Coden will inherently count occurrences of four or more.)

### Regarding dependent claim 24, Coden teaches:

A system according to Claim 17, wherein the non-standard capitalization comprises the at least one variation having any individual letter other than the first individual letter provided in uppercase.

(See, Coden, paragraphs [0067] and [0070], teaching that "usual capitalization" means having only the first letter of a word capitalized, and that singletons in the singles dictionary may have preferred unusual capitalization forms – inherently other than the first letter.)

## Regarding dependent claim 25, Coden teaches:

A system according to Claim 17, further comprising:

a standard capitalization selector selecting at least one such variation within the identified word set having a standard capitalization, and adding the at least one such variation to the lexicon.

(See, Coden, generally, Figures 1-12, and paragraphs [0035]-[0093], and specifically, paragraph [0067] teaching adding new words to the dictionaries.)

### Regarding dependent claim 26, Coden teaches:

A system according to Claim 17, further comprising:

a validator applying implicit rules for capitalization, and skipping each at least one variation subject to at least one such implicit rule.

(It is noted that the disclosure defines "implicit rules" in a non-limiting way, including, as stated: "The rules 41 include, by way of non-exclusive example, ignoring words that contain a number, have no vowels, or which constitute an article, conjunction, or preposition shorter than five characters and not appearing at the start of a phrase." See, Disclosure, page 10, lines 25-19.

See, Coden, Figure 5, and paragraph [0043], teaching heuristic processing for capitalizing words consisting entirely of consonants followed by a period.)

## Regarding dependent claim 27, Coden teaches:

A system according to Claim 26, wherein the implicit rules comprise skipping at least one variation based on position within a sentence or phrase.

(See, Coden, paragraphs [0043]-[0052], teaching rules for capitalization when a period may indicate an abbreviation or the end of a sentence.)

Regarding dependent claim 28, Coden teaches:

A system according to Claim 26, wherein the implicit rules comprise at least one of a number, having no vowels, and constituting at least one of an article, conjunction and preposition.

(See, Coden, paragraph [0043], specifically teaching words consisting entirely of consonants, and see Coden, generally, Figures 1-12, and paragraphs [0035]-[0093], and specifically, paragraph [0067] teaching rules for adding new words to the dictionaries.)

Regarding dependent claim 29, Coden teaches:

A system according to Claim 26, wherein the implicit rules comprise normalizing a number of occurrences for each at least one variation using at least one of a normalizing function and relative to a source of the at least one variation.

(It is again noted that the "normalizer" and the act of "normalizing" is disclosed as using the filter to protect the lexicon from being influenced by a large body of improperly capitalized words, such as might occur if the corpus of text was drawn from the web.

See, disclosure, page 12, line 29 through page 13, line3.

See, Coden, paragraph [0017], teaching a filter to eliminate items with a high likelihood of being erroneous. See generally, Coden, paragraphs [0009]-[0021], teaching prior art and the invention to establish and protect dictionaries from infrequently occurring and erroneous entries.)

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Regarding dependent claim 30, Coden teaches:

A system according to Claim 26, wherein the implicit rules comprise accommodating multiple forms of capitalization for each at least one variation by annotating each capitalization form with a frequency count and skipping those of

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the each at least one variation occurring infrequently.

(See, Coden, paragraph [0017], teaching a filter to eliminate items with a high likelihood

of being erroneous. See generally, Coden, paragraphs [0009]-[0021], teaching prior art

and the invention to establish and protect dictionaries from infrequently occurring and

erroneous entries.)

Regarding dependent claim 31, Coden teaches:

A system according to Claim 17, further comprising:

a hash table maintaining the lexicon.

(See, Coden, paragraphs [0090] and [0091], teaching the use of hash tables to maintain

entries to dictionaries.)

Regarding dependent claim 32, Coden teaches:

A system according to Claim 31, further comprising:

at least one record specifying at least one such word as a key into the

hash table, and associating at least one such variation within the word set as a

preferred capitalization.

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(As discussed above and as disclosed, that the purpose of the hash table in Coden is to maintain entries to dictionaries. In Coden, the dictionaries are the same as the lexicons identified in the application. Identifying a key word in a hash table to set the capitalization of a word is the purpose of the table and the invention of Coden. It is inherent in Coden to set preferred capitalization of at least one word in the hash table. See, Coden, generally, and see specifically paragraphs [0090]-[0091].

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Regarding **claims 33-48**, claims 33-48 incorporate substantially similar subject matter as claimed in claims 17-32, respectively, and are rejected along the same rationale.

Regarding **dependent claim 49**, claim 49 incorporate substantially similar subject matter as claimed in claim 17 and is rejected along the same rationale.

Regarding **independent claim 50**, claim 50 incorporate substantially similar subject matter as claimed in claim 17 and is rejected along the same rationale.

#### Conclusion

17. The following prior art is made of record and not relied upon that is considered pertinent to applicants' disclosure:

Coden, et al. (U.S. Patent 6,922,809 B2), teaching all aspects of the invention claimed in the application.

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Akers, et al. (U.S. Patent 6,278,967 B1), teaching automated natural language translation, including the use of dictionaries and application of grammar and capitalization rules.

Rayson, et al. (U.S. Patent 5,761,689), teaching auto-correction of electronic documents, including capitalization correction.

Kuno, et al. (U.S. Patent 5,528,491), teaching editing of automated language translation and the use of dictionaries and grammar ruled conversions.

Lu, et al. (U.S. Patent 5,410,475), teaching application of editing rules to tokenized text.

Bespalko (U.S. Patent 5,224,038), teaching tokenization of electronic documents.

Goldhor (U.S. Patent 5,101,375), teaching automatic capitalization of string text.

Fagan, et al. (U.S. Patent 4,991,094), teaching tokenization and character encoding schemes applied to natural languages.

Shahraray, Behzad and Gibbon, David C., "Automated Authoring of Hypermedia Documents of Video Programs," ACM Multimedia 95 – Electronic Proceedings, November 5-9, 1995, pages 1-12, teaching capitalization functions through linguistic processing applied to closed captioned text.

Bachenko, et al. "A Parser for Real-Time Speech Synthesis of Conversational texts," AT&T Bell Laboratories, Proceedings of ACL Conference on Applied Natural Language Processing, April 1992, pages 25-32, teaching the essential inventions of parsing, filtering, lexigraphical analysis, lexical lookup, and segmentation by phrase.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael K. Botts whose telephone number is 571-272-5533. The examiner can normally be reached on Monday Thru Friday 8:00-4:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Heather Herndon can be reached on 571-272-4136. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

**MKB** 

Ollow Davies
WILLIAM BASHORE
PRIMARY EXAMINER

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